**Practical No15.2**

**Title:** Program to draw Bezier Curve.

**Roll no:**   **Batch:**   **Class:** SYCM-

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#include<stdio.h>

#include<conio.h>

#include<graphics.h>

int gd=DETECT, gm, maxx, maxy;

float array[4][2];

void drawline(float x2,float y2)

{

line(array[0][0],array[0][1],x2,y2);

array[0][0]=x2;

array[0][1]=y2;

}

drawbezier(float xb,float yb,float xc,float yc,float xd,float yd,int n)

{

float xab,yab,xbc,ybc,xcd,ycd;

float xabc,yabc,xbcd,ybcd;

float xabcd,yabcd;

if(n==0)

{

drawline(xb,yb);

drawline(xc,yc);

drawline(xd,yd);

}

else

{

xab=(array[0][0]+xb)/2;

yab=(array[0][1]+yb)/2;

xbc=(xb+xc)/2;

ybc=(yb+yc)/2;

xcd=(xc+xd)/2;

ycd=(yc+yd)/2;

xabc=(xab+xbc)/2;

yabc=(yab+ybc)/2;

xbcd=(xbc+xcd)/2;

ybcd=(ybc+ycd)/2;

xabcd=(xabc+xbcd)/2;

yabcd=(yabc+ybcd)/2;

n=n-1;

drawbezier(xab,yab,xabc,yabc,xabcd,yabcd,n);

drawbezier(xbcd,ybcd,xcd,ycd,xd,yd,n);

}

return 0;

}

void igraph()

{

detectgraph(&gd,&gm);

if(gd<0)

{

puts("can not detect graphic card");

exit(1);

}

initgraph(&gd,&gm,"\\tc\\bgi");

}

main()

{

int i,gd,gm;

float x,y;

clrscr();

igraph();

for(i=0;i<4;i++)

{

printf("\nEnter x,y co-ordinate of point %d:",i+1);

scanf("%f %f",&x,&y);

array[i][0]=x;

array[i][1]=y;

}

drawbezier(array[1][0],array[1][1],array[2][0],array[2][1],array[3][0],array[3][1],8);

getch();

closegraph();

return (0);

}